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PATENT COOPERATION TREATY UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

HONEYWELL INTERNATIONAL, INC.

International Patent Application No.: PCT/US 02/15256

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International Filing Date: Priority Date Claimed:

Attorney Docket:

H0002489 PCT

Examiner:

Erma Cameron

For: LOW METAL POROUS SILICA DIELECTRIC FOR

INTEGRAL CIRCUIT APPLICATIONS

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RESPONSE TO INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY **UNDER ARTICLE 34**

This response is filed in response to the First Written Opinion from the International Preliminary Examining Authority in the above-identified PCT application. The date of mailing by the International Preliminary Examining Authority was January 30, 2004

In the First Written Opinion, the examiner found a novelty for claims 1-46 but not for claims 47-53, inventive step for claims 1-46 but not for claims 47-53, and inductrial applicability for claims 1-53. The applied prior art is EP 1142832A1 (Mandal, et al).

The within amendment and replacement page cancels claims 47-52 without prejudice and renumbers claim 53 as claim 47.

It is sub that former claim 53 (now claim 47) has the requisite novelty and inventive step over EP 1142832A1.

The examiner points out that EP 1142832A1 teaches a low dielectric constant silicon oxide film made from TEOS, MTES and an onium salt such as tetramethylammonium acetate. However the asserted claim is directed to a method of lowering the temperature at which a porous silica film forms comprising the step of adding onium ions or nucleophiles to a silicon-containing prepolymer and porogen. Similarly to claims 1-46, EP 1142832A1 does not disclose a method including a porogen. It is therefore submitted that former claim 53 (now claim 47) has the requisite novelty and inventive step over EP 1142832A1.

Reconsideration of this application is respectfully requested. If any defects in the application remain, another opinion is respectfully requested.

Respectfully submitted,

By:

Richard S. Roberts

Representative on Demand

Date: February 27, 2004

- 43. The composition of claim 34 wherein said porogen comprises polypropylene glycol monobutyl ether.
- 44. A precursor for stable nanoporous film formation comprising said composition of claim 35.
- 45. A spin-on composition comprising said composition of claim 35.
- 46. A film comprising said spin-on composition of claim 45.
- 47. A method of lowering the temperature at which a porous silica film forms comprising the step of adding onium ions or nucleophiles to a silicon-containing prepolymer and porogen.